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Area-Wide Soil Contamination Task Force – Meeting 6
September 24, 2002, Wenatchee, WA

Meeting Summary

The Area-Wide Soil Contamination Task Force met for the sixth time on September 24, 2002 in Wenatchee. The objectives of this meeting were to:

- discuss progress and next steps for the Task Force subgroups on nature and extent of contamination, protective measures, and institutional frameworks
- review follow-up information from the July Task Force meeting on the Model Toxics Control Act (MTCA) and approaches to address area-wide soil contamination in other states
- discuss a road map and pace for future Task Force activities

Communication Report and Forecast

A few Task Force members reported communication activities at this meeting. Steve Marek described press coverage of the release of sampling results in Pierce County, and Jon DeJong noted that the Wenatchee School District held a joint press conference with the Departments of Ecology (Ecology) and Health about the soil sampling conducted at schools in the Wenatchee area. The Departments of Ecology and Health also reported on recent briefings held for the State Senate Committee on Environment, Energy, and Water, and individual legislators on the Tacoma Smelter Plume and Area-Wide Soil Contamination Projects.

Nature and Extent Task Force Subgroup Report and Discussion

Task Force member Dr. Frank Peryea reported on the progress this subgroup has made in developing a conceptual approach to using and communicating estimates of the nature and extent of area-wide soil contamination. He noted that the conceptual approach consisted of four interconnected elements:

- background information on the historical sources of the arsenic and lead soil contamination
- maps to help the public identify, in a general sense, where there might be elevated levels of arsenic and lead in soil
- refining questions to help individuals determine, based on location and property use, whether elevated levels may be present on particular properties and decide whether to test soils on those properties
- sampling guidance, which would be developed later, to provide guidelines for individuals who choose to conduct soil sampling

Dr. Peryea described a series of maps and figures that might be used to communicate estimates of the nature and extent of contamination, including a map showing the potential for lead arsenate contamination by county, figures outlining areas affected by smelter emissions,

and a "ladder" diagram illustrating a potential relationship between concentrations and protective measures that might be employed.

In response to Dr. Peryea's presentation, Task Force members asked a variety of questions about how the maps and questions were derived, the cost and nature of sampling that would be needed to determine concentrations on properties, and how the maps might change as new information were gathered. Inquiries made included whether there were ways to make the lead arsenate map more precise and therefore more usable, and whether there were ways to improve upon and increase the usability of the refining questions through a decision tree or flow chart. Suggestions for increasing the precision of the lead arsenate map and refining questions included excluding public lands, areas above certain elevations, or areas more than a certain distance away from irrigation canals, if appropriate, from the areas with potential lead arsenate contamination. A suggestion was also made that the maps remain as drafted, but that individual Counties might decide to refine the maps as they find useful. Another point of concern was the fact that the maps might have unintended consequences if published and could be used outside the context of the Task Force's recommendations. Finally, a few Task Force members questioned whether it would be advisable to further refine the maps.

Based on this discussion, the Task Force decided on the following next steps for the nature and extent subgroup.

- Nature and Extent Decision Tree. The nature and extent subgroup will refine and potentially add to the questions in the conceptual approach to using the preliminary estimates and develop a decision tree or flow chart using those questions. The subgroup will think about the intended audiences for the decision tree and determine what questions would be understandable, useful, and answerable for those audiences in determining whether to test soils at particular properties and/or take actions to limit potential exposure. The decision tree may need to incorporate information on how individuals may find out answers to the questions (e.g., how to determine whether a property used to be an orchard).
- Role of Institutions. The nature and extent subgroup will consider how institutions might or should be involved in gathering and/or providing information on the nature and extent of contamination. There may be cases where institutional responses, not just individual responses, may be appropriate (e.g., public agencies might want to test soils in public parks).
- Benefits and Costs of Maps. Finally, the nature and extent subgroup will explore the potential benefits and costs (including unintended consequences) of developing and using maps and will develop a list of pros and cons for the full Task Force to consider. This will include thinking about the intended audiences for the maps, their utility, the effort that would be needed to further refine the maps, and whether it indeed would be worth the effort.

Task Force members Ray Paolella, Mike Wearne, and Ken Stanton joined the nature and extent subgroup to assist in these and other future efforts.

Updates on Various Information from the July Task Force Meeting

The Model Toxics Control Act: Reporting Requirements, Listing Procedures, and Ecology's Use of Enforcement Discretion

As follow-up to questions posed at the last meeting, Rick Roeder of Ecology described MTCA's requirements for reporting releases of contaminants; the procedures Ecology must follow for site assessment, ranking, and listing of hazardous waste sites once releases are reported; and how Ecology uses its enforcement discretion at residential and agricultural properties. Ecology staff noted that there are currently over 9,000 sites on the list of confirmed and suspected contaminated sites. Ecology intends no further action for roughly half of those sites, and only about 1,000 sites have actually been ranked and placed on the hazardous sites list.

Approaches to Address Area-Wide Soil Contamination in Other States

Dave Bradley of Ecology described the Oregon Department of Environmental Quality's experience with cleanup of area-wide arsenic and lead soil contamination. Very few of the cleanup projects DEQ has reviewed or overseen have involved the conversion of former orchard lands or other types of land with widespread, low-to-moderate soil contamination. Potential reasons as to why the issue of area-wide soil contamination has not received as much attention in Oregon as in Washington include differences in the extent of area-wide contamination, the extent of agricultural land conversion, and the extent of reporting.

Finally, Jennifer Tice of Ross & Associates presented a brief overview of the State of Wisconsin's Lead Arsenate Program, which is focused on educating the public about the potential for lead and arsenic contamination at old orchard sites, recommending best management practices and other protective measures for reducing exposure, and identifying former orchard locations in rapidly developing areas of the state.

In response to these presentations, some Task Force members asked to have Internet links to area-wide soil contamination programs in New Jersey, Wisconsin, and other states posted on the project website. A few Task Force members also suggested that it would be useful in the future to learn more from Task Force members Mike Wearne, Katherine Bridwell, and potentially other speakers about the roles of financial institutions in the site assessment and cleanup process.

Update on Other Arsenic and Lead Activities

Jim Pendowski of Ecology reviewed Ecology's recent activities related to arsenic and lead soil contamination, including sampling and outreach in Pierce and King Counties within the Tacoma smelter plume, in child-use areas in Okanogan County, and at Wenatchee and East Wenatchee schools. The Department of Agriculture and the Office of Community Development had no activities to report.

Dr. Jude Van Buren of the Department of Health reported on a variety of the Department's activities, including the five-year biomonitoring research grant the Department would be applying for, briefings for State legislators on arsenic soil contamination and childhood lead poisoning in Washington, and continued blood-lead screening of high-risk children in nine counties. She stated that the chartering agencies had received the letter from the Task Force co-chairs requesting increased health monitoring for lead and arsenic, and that the agencies would be responding to it jointly by the next Task Force meeting. Finally, Dr. Van Buren noted that the Department is preparing a summary of animal and human epidemiological studies on the health effects of exposure to lead and arsenic in soil that will be distributed to the Task Force by mail.

Several Task Force members asked whether the Department of Health had or would be conducting blood-lead screening for non-Hispanic children as well as Hispanic children in area-wide soil contamination areas and were concerned that the Department did not seem willing to consider using public funds to conduct additional research in order to understand exposures for the broader population. Task Force members had some suggestions for how this research could be conducted, but also asked for the expertise and advice of the Department of Health in outlining options for public health programs.

- Options for Increased Health Monitoring. As a next step, the Task Force requested that the Department of Health and the other chartering agencies work with Randy Phillips, Steve Marek, and other Task Force members as appropriate to explore and summarize steps that public agencies could take to find out more information on the exposures of non-Hispanic children living in area-wide soil contamination areas. This would be part of the agencies' response to the Task Force co-chairs' letter requesting increased health monitoring.

Protective Measures Task Force Subgroup Report and Discussion

Task Force member Craig Trueblood explained the progress the protective measures Task Force subgroup has made in describing examples of protective measures that might be used to address area-wide soil contamination and in evaluating the example protective measures in different land-use scenarios. He described and provided examples of six categories of protective measures—education programs, land-use/institutional controls, public health programs, best management practices, physical barriers, and actions to reduce contamination—and noted that the consultant support team had evaluated the protective measure examples based on their effectiveness (for protection of both human health and the environment), cost/affordability, and practicality. Furthermore, he that the protective measures subgroup had starting discussing land-use scenarios (e.g., residential, developed land or undeveloped land being considered for residential development) that might affect the selection of protective measures and noted, based on the nature and extent discussion, that concentration was another factor the protective measures subgroup could consider.

Task Force members had a number of questions, comments, and suggestions on specific protective measures and the protective measures evaluation table, which presented the consultant support team's recommended evaluations of protective measures.

- Suggestions for implementing protective measures included requiring a vacant land disclosure form; incorporating educational efforts into the existing K-12 education system; establishing guidelines for siting new schools, day-care facilities, or nursing homes; and using websites and listservs to communicate information.
- A number of Task Force members thought that the ranking system could be simplified and improved by eliminating the effectiveness rankings within categories of protective measures and by using a color scheme and/or clearer symbols (such as *Consumer Reports*-style ratings) for the rankings to help people interpret the table.
- A few Task Force members also requested supporting information for the protective measures evaluation table, including information on the basis for the rankings and the range of possible protective measures that were considered.

- Finally, several Task Force members asked about how individuals would use the table to make decisions and wondered whether institutional processes might be needed to ensure that protective measures are implemented in certain circumstances.

Based on this discussion, the Task Force decided on the following next steps for the protective measures subgroup.

- Protective Measure Rankings. The protective measures subgroup will work with the consultant support team to refine the rankings and their presentation in the protective measures summary tables (including removing the intra-category effectiveness rankings and using clearer symbols for the rankings) and produce the background information supporting the recommended rankings.
- Applicability and Use of the Protective Measure Evaluation Table. The protective measures subgroup will discuss how decisions should be made about which protective measures to use where, including considerations of land-use, concentration of contaminants, and institutional versus individual roles. This discussion will focus on the applicability and use of the protective measures evaluation table and how that should be integrated with the work of the nature and extent subgroup.
- Public Health Programs. The Department of Health will work with the protective measures subgroup to refine the example protective measures, including options for health monitoring as discussed earlier, in the health programs category.

Institutional Frameworks Task Force Subgroup Report and Discussion

Task Force member Ray Paolella described what the institutional frameworks Task Force subgroup, which is focused on implementation, has discussed during its first conference call. He outlined the main questions the institutional frameworks subgroup is addressing and said that the subgroup had started to identify the types of institutional players that might be involved in implementation and to discuss their strengths and weaknesses.

Task Force members and agency staff suggested additional possibilities for institutional players, including labor and industry, religious institutions, for-profit environmental remediation businesses, and attorneys. A few Task Force members commented that it would be important for the subgroup to consider not only what institutions would be most appropriate for a given role, but also the capacity (including financial resources and legal authorization) and competing priorities for those institutions.

- Institutional Roles. In its next conference call, the institutional frameworks subgroup will start matching institutions with potential roles in identifying locations of area-wide contamination and in implementing the example protective measures for certain land-use and concentration scenarios. This will build on the work completed to date and the planned future direction of the nature and extent and protective measures subgroups.

Funding and Financing Task Force Subgroup Discussion

The funding subgroup will have its first conference call before the next Task Force meeting to start discussing resource issues, making educated guesses about the potential outcomes of the other subgroups' work to start the discussion.

Roadmap and Pace for Future Task Force Activities

Bill Ross of Ross & Associates commented that with continuing analytic work of the Task Force subgroups, the Task Force is on track for completing the majority of the analysis in the next two meetings and then starting to discuss potential recommendations to the agencies in January.

Task Force members generally agreed that the Task Force was on the right path and made a few specific information requests for future Task Force meetings.

- A number of Task Force members noted that it would be helpful, after the Task Force has developed potential recommendations, to discuss those recommendations with a panel of people who would be implementing them (e.g., public health officials, local planning offices, etc.).
- A few Task Force members asked to have a briefing, perhaps from the State Insurance Commissioner's Office, about how area-wide issues are considered within the industry. They are also interested in hearing about how Texas has addressed mold provisions with regard to homeowners' insurance policies.
- Other Task Force members noted that the Task Force had not yet learned about the Attorney General's response to questions about public disclosure requirements regarding sampling.

Public Comments

Tom Martin of Asarco said that Asarco has an information center in Ruston that contains information, including a 13-volume set of studies, on blood-lead studies, community protection measures, and other aspects of the Tacoma smelter plume site. He thought that the Task Force should be aware of the resources available at this information center, since they are potentially relevant to the area-wide soil contamination project.

A few Task Force members thought it would be useful to have a catalog or bibliography of the information available in this information center; Mr. Martin was not sure whether such a catalog already existed.

Next Steps

- The consultant support team will be in touch with Task Force members to schedule conference calls for the nature and extent, protective measures, institutional frameworks, and funding Task Force subgroups.
- The nature and extent subgroup will revise the questions in the conceptual approach to using the preliminary estimates, develop a decision tree with those questions to help individuals decide whether to test soils on individual properties or take precautionary actions to reduce exposure, discuss the potential roles of institutions in gathering and providing information on the nature and extent of contamination, and develop a list of pros and cons for refining and using maps.
- The protective measures subgroup will work with the consultant support team to revise the rankings in the protective measures evaluation table and provide background information

supporting the consultant team's recommendations, and the subgroup will also discuss the applicability and use of the table in helping individuals and institutions decide which protective measures should be implemented at particular locations based on land use, concentration, and other factors.

- The institutional frameworks subgroup will start discussing which institutional players might be most appropriate for particular roles in identifying locations of area-wide soil contamination and in implementing the example protective measures in different situations.
- The funding subgroup will hold its first conference to start discussing resource issues relevant to the work of the other subgroups.
- The Department of Health will work with the other agencies and Task Force members as appropriate to develop a list of options for increased health monitoring and other components of public health programs for consideration by the Task Force and the protective measures subgroup.
- The Department of Ecology will post Internet links to other State area-wide soil contamination programs to the project website.
- The next Task Force meeting will be on November 7 in Seattle.

Meeting Materials

- Agenda
- Project map
- Updated list of Task Force subgroup participants
- Final letter from the Task Force co-chairs requesting increased health monitoring
- Summary of July 25 Task Force meeting
- Ecology news release on lead and arsenic sampling results from Pierce County
- Agency briefing on the Area-Wide Soil Contamination and Tacoma Smelter Plume Projects for the State Senate Environment, Energy, and Water Committee
- E-mail announcement for Vashon-Maury Island Heavy Metals Remediation Committee symposium on November 18
- Draft Conceptual Approach to Communicating and Using the Preliminary Estimate of the Nature & Extent of Arsenic and Lead Soil Contamination
- MTCA Reporting Requirements and Enforcement Discretion handout
- Oregon's Efforts to Address Low-to-Moderate Levels of Arsenic and Lead in Soils handout
- Wisconsin's Efforts to Identify and Address Historical Pesticide Contamination handout
- Associated Lead and Arsenic Related Activities handout
- Biomonitoring Grant Update and Lead Update handout
- Arsenic Soil Contamination Public Health Concern handout
- Childhood Lead Poisoning Surveillance in Washington handout
- Protective measures Task Force subgroup presentation
- Protective Measures Evaluation table – Residential Land Use Scenario
- Land Use Scenarios and Combinations of Protective Measures
- Examples of Institutional Players

Members in Attendance
Katherine Bridwell, SAFECO
Jon DeJong, Wenatchee School District
Steve Gerritson, Sierra Club
Jim Hazen, Washington Horticultural Association
Linda Hoffman, Washington State Department of Ecology
Steve Kelley, Windermere Real Estate, Wenatchee
Steve Marek, Tacoma/Pierce County Health Department
Laura Mrachek, Cascade Analytical
Ray Paolella, City of Yakima
Frank Peryea, Washington State University Tree Fruit Research and Extension Center
Randy Phillips, Chelan-Douglas Health District
Marcia Riggers, Washington State Office of the Superintendent of Public Instruction
Ken Stanton, Douglas County Commission
Craig Trueblood, Preston Gates & Ellis
Jude Van Buren, Washington State Department of Health
Mike Wearne, Washington Mutual Bank
Ann Wick, Washington State Department of Agriculture

Members Unable to Attend
Loren Dunn, Riddell Williams for Washington Environmental Council
Ted Gage, Washington State Office of Community Development
Scott McKinnie, Far West Agribusiness Association
Paul Roberts, City of Everett

Consultant Support
Kris Hendrickson, Landau Associates
Julie Wilson, Landau Associates
Anne Dettelbach, Ross & Associates Environmental Consulting
Bill Ross, Ross & Associates Environmental Consulting
Jennifer Tice, Ross & Associates Environmental Consulting

Agency Staff and Ex Officio Alternates
Washington State Department of Ecology:
- Don Abbott
- Dave Bradley
- Dawn Hooper
- Jim Pendowski
- Rick Roeder

Washington State Office of the Attorney General, Ecology Division:
- Steve Thiele